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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,076

11/14/2003

Vikrant Kasarabada

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EXAMINER

CZEKAJ, DAVID J

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

02/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/714,076	Applicant(s) KASARABADA ET AL.	
	Examiner DAVID CZEKAJ	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-58 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

Claims 1-17 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. It is unclear what performs the receiving and determining steps. While the claim does recite a computer implemented method in the preamble, the inventive step of the claim does not recite what performs the processing steps, thus making it unclear on what performs the various processing steps.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al. (6690732), (hereinafter referred to as "Naito") in view of Wu et al. (6804301), (hereinafter referred to as "Wu").

Regarding claim 1, Naito discloses an apparatus that relates to scene change detection (Naito: column 1, lines 7-10). This apparatus comprises "receiving macroblocks for an uncompressed image" (Naito: figure 1) and "encoding the image without changing the frame type of the image in response to the determination of a scene change and the frame type of the image" (Naito: column 3, lines 50-59, wherein it is well known in the art that I frames (frame type) cause scene changes). However, this apparatus lacks determining the macroblock type and the distribution of blocks as claimed. Wu teaches that prior art encoding systems requiring buffering a number of frames prior to encoding because the complexity of a frame lags behind the encoding process, which adds expense and complexity to the system (Wu: column 1, lines 59-67). To help alleviate this problem, Wu discloses "determining a block type, determining a distribution of block types, and determining whether the image represents a scene change based on the block type and frame type" (Wu: column 6, lines 23-39, wherein the block type is the complexity of the blocks, the frame type is determining the I and P frames). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Naito and add the processing taught by Wu in order to

obtain an apparatus that helps reduce the cost and complexity of scene change detection systems.

Regarding claims 2-3 and 6, although not disclosed, it would have been obvious to identify the scene change based on the percentage of prediction, bidirectionally, and intra coded blocks (Official Notice). Doing so would have been obvious in order to better help identify a scene change by verifying a certain amount of blocks are different.

Regarding claim 4, note the examiners rejection for claim 1.

Regarding claim 5, Wu discloses "the threshold is about .65" (Wu: column 6, lines 25-39, wherein the threshold is the I complexity value. While Wu fails to explicitly show the threshold being .65, Wu does disclose setting threshold values to judge a scene change. The examiner notes that it would have been obvious to set the threshold at a value indicating over half of the bocks, such as .65, in order to successfully determine a scene change).

Regarding claim 7, note the examiners rejection for claims 1 and 6.

Regarding claim 8, Wu discloses "the threshold is about .7" (Wu: column 6, lines 23-39. While Wu fails to explicitly show the threshold being .7, Wu does disclose setting threshold values to judge a scene change. The examiner notes that it would have been obvious to set the threshold at a value indicating over half of the bocks, such as .7, in order to successfully determine a scene change).

Regarding claim 9, note the examiners rejection for claims 1 and 6.

Regarding claim 10, Wu discloses “responsive to the forward predicted blocks exceeding a threshold, identifying a scene change” (Wu: column 6, lines 23-39).

Regarding claim 11, note the examiners rejection for claim 8.

Regarding claim 12, note the examiners rejections for claims 3, 6, and 9.

Regarding claim 13, Naito discloses “wherein encoding the image comprises increasing a number of bits used to encode the image” (Naito: column 3, lines 44-67).

Regarding claim 14, Naito discloses "encoding the image comprises changing a quantization rate used to quantize the image" (Naito: column 2, lines 60-67).

Regarding claim 15, although not disclosed, it would have been obvious to increase a counter indicating a number of bits available for a remaining set of images (Official Notice). Doing so would have been obvious in order to help correctly determine how many image samples are left.

Regarding claim 16, although not disclosed, it would have been obvious to increase a counter indicating a number of bits allocated to images having the same frame type (Official Notice). Doing so would have been obvious in order to help easily determine how many frames are of the same type.

Regarding claim 17, although not disclosed, it would have been obvious to store generated information in a side information file (Official Notice). Doing so would have been obvious in order to allow quick access to the information.

Regarding claims 18-34, note the examiners rejections for claims 1-17.

Regarding claims 35-51, note the examiners rejections for claims 1-17.

Regarding claim 52, note the examiners rejection for claim 1.

Regarding claims 53-58, note the examiners rejections for claims 53-58.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Dave Czekaj/
Primary Examiner, Art Unit 2621